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CENTRAL INTELLIGENCE AGENCY

REPORT NO

INFORMATION REPORT

CD NO.

COUNTRY

East Germany

DATE DISTR. 27 February 1953

SUBJECT

RFT Funkwerk Koepernick Development of Single Sideband Radio Transmitter.

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25X1A

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SUPPLEMENT TO
REPORT NO. 25X1X

1. The following are technical details of the high power side-band suppressed carrier transmitter being developed at RFT Koepernick:
- A 1 (soundless telegraphy): peak carrier amplitude (Oberstrich) 50 KW
 - A 2 (sound telegraphy): effective line power (Strichleistung) 18.5 KW
 - A 3 (commercial telegraphy): effective continuous output (Lauerleistung) 18.5KW

Unmodulated carrier A2 and A3: 12.5 KW each

Integrated output A3a/b: 50 KW

Outlet in unsymmetrical cable (Ausgang auf unsymmetrisches Kabel): 60 Ohm

Frequency range: 3 to 23 MHz (megacycles)

Accuracy with quartz: ten power minus five.

Net constant (Netzkonzanz): plus-minus ten percent

Temperature range: plus minus 20 degrees centigrade

Harmonic content (Oberwellenanteil): smaller than 50 milliwatt

Band width: 100 to 6,000 Hz (cycles)

Degree of carrier suppression: down to three percent.

2. The operating schemes of the transmitter are as follows:

a) Single side-band operation:

- 1. CCI scheme (Comite Consultatif International de Radiodiffusion) for four speaking channels or four V/T channels (AC telegraphy)
- or 2. three TT schemes for 3 speaking or V/T channels
- or 3. two speaking channels and one radio channel
- or 4. two radio channels

b) Two side-band operation:

- 1. Soundless telegraphy (V 1)

25X1A

CLASSIFICATION SECRET

- 2 -
2. Sound telegraphy (A 2)
 3. Commercial telegraphy (A 3)
 4. Picture telegraphy (A 4)
 5. Grid modulation A 2, B (A 2 or A 3)
3. Development of the transmitter with the above technical data was ordered by the East German Ministry for Post and Telecommunications. Funds for the construction have been made available by the Zentralamt fuer Forschung und Technik (ZAF) of the State Planning Commission. The high-frequency parts of the transmitter are being developed at RFT Funkwerk Koepenick under the over-all direction of (fnu) Ostmann. 1/ The medium-frequency parts of the transmitter are developed and built by Fernmeldewerk Leipzig under the direction of (fnu) Hubl. A coordinating conference between the Koepenick and the Leipzig technicians takes place every other week. Three development deadlines have been established. Parts with accurate electrical values and accurate output are to be completed by 15 December 1952, the construction elements by 15 February 1953, and the entire development at Koepenick and Leipzig is to be completed by the beginning of July 1953. Construction is to begin in the same month. Construction is scheduled to last about three months. Four to six more months are allowed for final work on the transmitter, including test operations, re-arrangements and improvements. The transmitter is supposed to be delivered during the first quarter 1954.
4. By 15 December 1952 RFT Funkwerk Koepenick had filled its part of the development as scheduled. The electrical parts have been completed, the required output has been reached, the required values as established in the order of the Post Ministry have been attained. The completed parts need much improvement for modulation, over tones, etc. Officially, RFT Koepenick reported to the Post Ministry that by 15 December 1952 development of the transmitter was in a general sense (umfangsmaessig) one-third completed, and with reference to vital components (schwerpunktsmaessig) two-thirds completed.
5. It has become known that the transmitter will be put at the disposal of the East Asia Service of East Germany. It will probably be installed in the vicinity of Seelitz near Potsdam. This follows from the fact that RFT Funkwerk Koepenick is now developing an antenna installation with technical data for frequency and reflection which accurately fit the characteristics of the transmitter; the antenna is for use in the Seelitz region. Development of the antenna is under the direction of Dr. Erich Schuetthoeffel, a returnee from Russia in the fall of 1952.

25X1A

- 1/ [REDACTED] Comment. Ostmann has two years' experience with the Phillips firm. His father is a state prosecutor in East Germany.